

May 27, 2003

TO: Internal File

FROM: Priscilla W. Burton, Senior Reclamation Specialist/Soils

RE: Soil Movement and Cut/Fill Balance and Blind Canyon Seam analysis, CO-OP Mining, Bear Canyon Mine, C015025-AM03B-1

**SUMMARY:**

On January 27, 2003, the Division received a permit amendment describing the transfer of 1,000 cu yds of soil from the Blind Canyon tunnel development (TS 15) to the Tank Seam reclamation site for use as fill. This transfer of material started a ripple in the cut/fill reclamation plans. There are no changes to the total amount of fill required, only the source of fill. A source of fill for the new Tank Seam portals is the Tipple yard. This revision dated April 22, 2003 provides for testing of the Tipple yard soils for acid/toxic characteristics prior to transfer to the Wild Horse Ridge Tank seam pad.

**TECHNICAL MEMO**

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**TECHNICAL ANALYSIS:**

**RECLAMATION PLAN**

**BACKFILLING AND GRADING**

Regulatory Reference: 30 CFR Sec. 785.15, 817.102, 817.107; R645-301-234, -301-537, -301-552, -301-553, -302-230, -302-231, -302-232, -302-233.

**Analysis:**

**General**

Plates 8-5 C, E & G illustrate the location of reclamation areas TS 5, TS 7, TS 8, TS 11, TS 15 and TS 17 under discussion in this amendment.

Approximately 1,000 cubic yards of material excavated from the construction of the Blind Canyon Portal tunnels (TS 15) was taken to the old Tank seam pad (TS 11) for use as fill in the ongoing reclamation of that pad. The fill has been covered with topsoil and seeded.

Backfill over the tunnel under the Blind Canyon pad (TS 15) will come from the Wild Horse Ridge Tank Seam Access Road and TS 17.

The existing plan called for 1,000 cu yds of soil from TS 8 to be used in the reclamation of TS 11. This need was filled by the material from the Blind Canyon tunnel excavation, as reflected on page 3H-10 and 3L-73 of the submittal. As a result, TS 8 has 1,000 cu yds more available as fill and will require only 952 cu yds of imported fill from TS 5.

The Blind Canyon tunnel area (TS 15) was backfilled with 1,000 cu yds of soil from the Wild Horse Ridge TS 17 area where an additional cut to the south of ditch D 42U and Catch Basin 3 will widen the pad by five feet (shown on Plate 2-4G). The submittal indicates that any additional material generated from the Wild Horse Ridge development will be hauled to TS-7 and TS-8 for reclamation of those areas. So the use of TS 5 soils may be reduced even further.

This will create a 1,000 cu yd deficit in TS 17. The cuts of TS 17 will be partially filled with 1,000 cu yds of material from the TS 5 (page 3L-13 and 3P-7). The wording on pages 3P-7 and 3O-13 clearly describes the soil movement.

**Findings:**

The information provided meets the requirements of the Backfilling and Grading Reclamation plan.

**HYDROLOGIC INFORMATION**

Regulatory Reference: 30 CFR Sec. 784.14, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-301-512, -301-513, -301-514, -301-515, -301-532, -301-533, -301-542, -301-723, -301-724, -301-725, -301-726, -301-728, -301-729, -301-731, -301-733, -301-742, -301-743, -301-750, -301-751, -301-760, -301-761.

**Analysis:**

**Acid and toxic-forming materials**

The submittal describes the placement of soils from the Tipple yard as fill in the Wild Horse Ridge reclamation area TS17. To protect the hydrologic balance of TS 17, all material moved will be sampled according to table 3K-1 using the frequency described in Table 8.11-1 (page 3P-7).

**Findings:**

The information provided meets the hydrologic balance protection requirements of the Regulations.

**RECOMMENDATION:**

The application for soil movement is recommended for approval.